Draft for Discussion Purposes
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Columbia/Snake River Mainstem System Water Quality Plan

Background:

- The 2000 Biological Opinion on the Federal Columbia River Power System (FCRPS) calls for the development of a systemwide Water Quality Plan for the Columbia and Snake Mainstem. The purpose of this Water Quality Plan is to move toward Clean Water Act *(CWA)* standards attainment consistent with the goals identified in the NMFS 2000 FCRPS Biological Opinion. The Water Quality Plan will focus primarily on the physical and operational changes to both Federal and non-Federal *mainstem* dams to improve water quality. The 2000 Biological Opinion contains the following water quality goals:

Purpose Statement:

- The Water Quality Plan work group will work to identify short-term actions for funding and implementation while working towards a *comprehensive,* long-term Water Quality Plan for the mainstem that coordinates *water quality improvement actions of* the 2000 FCRPS Biological Opinion, the *Northwest Power Planning Council's (*NWPPC) sub-basin plans, the CWA, *and Tribal treaty and trust resources* to benefit fish.

Water Quality Goals from the 2000 NMFS Columbia River Biological Opinion

- **Total Dissolved Gas:** "The long-term *total dissolved gas* (TDG) goal (10 to 15 years) is to reach the 110% TDG standard in all critical habitat in the Columbia and Snake River basins while taking actions to recover listed species in the basins. For anadromous fish, achieving the goal would mean fish passage survival levels are consistent with the performance standards for the mainstem projects."

- **Temperature:** "The long-term goal for water temperature is standard attainment in all critical habitat in the Columbia River and Snake River basins."

Scope (from the 2000 NMFS Columbia River Biological Opinion)

- The plan will address *water quality improvement* actions from the international boundary on the Columbia River, Dworshak Dam on the Clearwater River, and Brownlee Dam on the Snake River to the ~~tailrace of Bonneville Dam~~*mouth of the Columbia River*. Future work may include considerations above the international boundary. While the plan will aim to take into account the role of tributaries into water quality problems relative to the mainstem, it will not seek specific remedies in the tributaries. Ongoing CWA TMDL processes and other water quality improvement initiatives are under way in many of the tributaries and should not be delayed in anticipation of the plan.

Principles:

- **Provides a system-wide implementation plan for water quality actions the NMFS 2000**

FCRPS Biological Opinion as called for in Appendix B of the Biological Opinion.

- *The goal of the Water Quality Plan work group will be to coordinate ongoing efforts to develop TMDL implementation plans and integrate relevant water quality improvement actions in the development of a mainstem system Water Quality Plan.*

- **Serves as Implementation Framework for the Columbia/Snake Mainstem Temperature and Dissolved Gas TMDL**

  - The *Mainstem System* Water Quality Plan would form the framework for the state implementation plans prepared for the Columbia/Snake Mainstem TMDL for gas and temperature.

- **The Water Quality Plan would serve as the implementation framework (and justification) for the Corps to receive water quality standard variances for TDG.** This Corps' commitment to long term water quality planning will serves as a justification to the states for waivers.

- **Full engagement, policy and technical commitment of all three Columbia River Power System Action Agencies**: Corps of Engineers, Bonneville Power Administration, and the Bureau of Reclamation

- **Commitment to an Ongoing Federal Executive Policy Dialogue** - Federal executives in the region will meet on a regular basis to ensure an ongoing dialogue on water quality issues in the mainstem Columbia/Snake Rivers.

- **Commitment to Use Unified and Best Available Science** - EPA and the Corps commit to coordinate science efforts and use respective science work efforts to support and bolster rather than divide and conquer.

- **Commitment to Fund** - Development and implementation of this Water Quality Plan will require funding. Implementation of action in water plan quality will require resources from Bonneville Power Administration and Congressional appropriations. The Action Agencies will commit to allocate available resources to support Water Quality Plan development and implementation.

Components of the Water Quality Plan

1. ESA Water Quality Actions to avoid jeopardy (RPA 130 -143)

2. TMDL Process

3. TDG
   a. Lower Columbia/Snake River D-Gas Study (project by project break-out)

b. Upper Columbia
   i. Grand Coulee/Chief Joseph/Libby?
   ii. Transboundary Gas Group
c. *Public Utility Districts* (PUDs)
d. Water Quality Modeling
   i. Identification of needs-
e. Water Quality Measures
   i. Identification of measures - operational/capital-structural
   ii. Costs
   iii. Schedule to Implement
f. Water Quality Monitoring
   i. Protocols and standard practices (QA/QC)

4. Temperature
   a. Project Management Plan - Provides a framework for temperature work
   b. Coordination with Columbia Mainstem TMDL

   c. Water Quality Modeling
      i. Identification of needs-

   d. Water Quality Measures
      i. Identification of measures
      ii. Costs

   e. Water Quality Monitoring
      i. Analysis and Identification of Monitoring Measures
      ii. Temperature - The need for more augmented temperature monitoring was a specific addressed as a result of the 1999 peer review for the EPA Temperature Assessment. In response to the peer review, EPA has provided specific suggestions for augmented temperature monitoring in the attached paper, "An Outline of a Monitoring Program for Estimating the State of Water Temperature in the Columbia and Snake Rivers," prepared by EPA, May 1, 2001, and presented to the Water Quality Team on May 8, 2001.